# Lower Columbia College Re-Thinking Pre-College Math Project Plan 2011-12

* Classroom Assessment Techniques
  + According to our instructor expectations document, faculty teaching pre-college mathematics should use at least one CAT each quarter. While we have not yet reached 100% compliance, we are hoping to increase the use of CATs among faculty by providing additional training.
  + Another issue has been that some faculty who are using CATs are not always good about reporting this to Terri; therefore she plans to send out regular reminders about the need for documentation.
  + We are also thinking that a classroom exchange focused on the effectiveness of the use of a CAT may encourage those who have been reluctant to give them a try.
* Faculty Inquiry Groups
  + In the beginning our FIGs were mainly a forum for the airing of grievances and concerns. This trend seems to have subsided and good discussions of andragogy have been taking place. While this is still not technically a FIG, we do find value in the discussions and plan to continue to encourage interested faculty to get together to share best practices.
  + Much of these curricular changes are forcing departmental norms to shift as well. It is becoming apparent that in order to continue, faculty need to trust each other. In an attempt to create a new culture of mutual support we would like to institute “social FIGs”. Mike Skeie, adjunct faculty, has already volunteered to host a Saturday BBQ where faculty can get to know (and hopefully like) each other outside of work.
  + A great opportunity for a “real” FIG seems to be in our 8th module (Problems Solving Skills and Strategies). We plan to create two multi-step problems for students to work on before and after their module 8 instruction. We can then get together to analyze student responses and help inform our instruction in subsequent quarters.
* Classroom Exchange
  + Classroom exchange continues to be logistically and politically problematic for us. All of our full-time faculty are teaching 20 credits and most of our adjuncts are as well. Further, most adjuncts are not available outside of class as they have family and/or other work commitments. Also, many of our adjuncts fear that classroom exchanges will be used punitively as an evaluation of their instruction.
  + We need to identify a few “safe” full-time and “brave” adjuncts willing to allow others into their classes so that more will see the value of this practice.
  + In an attempt to ensure a prolonged interest in classroom exchanges after the end of the grant, we have been talking with the dean and the professional development committee on campus about the idea of working with other talented faculty on our campus outside of the math department. We recognize that there are “master” teachers across our campus who would be able to assist us in our pursuit of improving student engagement in the classroom. Participation would mean PDUs (professional development units) and thus opportunities for advancement on the salary schedule.
* Massive Curriculum Redesign
  + In the last year we have completely redesigned our entire pre-college mathematics curriculum by condensing our previous four quarter sequence into a three quarter “modularized” sequence of courses.
  + As of last spring all courses are now implemented and the old sequence is no longer.
  + Our previous INDV (individualized instruction) courses have been removed from the Learning Commons and are now folded into the first three credits of the “seventies”. This was the last step in ensuring that all credit bearing math courses are taught by the math department.
  + With the current influx of underprepared students we have seen a need to offer our one credit whole numbers course in a classroom rather than just a self-paced modality. This “new” lecture course will begin in the fall. The class will run for the first four weeks of the quarter followed by a three credit 078, thus allowing students the opportunity to remediate and earn 4 credits in a classroom.
* Instructor Resource Center (IRC)
  + An online repository has been created to assist faculty in planning for their courses. Organized by module, the IRC contains worksheets, practice tests, vetted websites, sample syllabi, and more.
  + Now that the basic needs of faculty have been met, we plan to spend this year adding “rich tasks” and activities. While it is clearly too much work for one person to create an entire set of such problems, we are hoping that if each faculty member contributes one activity we will be able to begin a valuable bank of resources to be used in the future.
* Lagging Course Sequence (aka 3/2 split)
  + Fall quarter we will make the final step in the complete implementation of our lagging sequence. Struggling students will have the opportunity to “fall back” into a lagging sequence so that they may complete 3 credits rather than failing a full 5 credits. The lagging sequence will continue the next quarter so that they may continue to proceed through pre-college sequence. This will hopefully help us to retain more students by allowing them some success as well as saving them both time and money.
* Assessment of Grant Efforts
  + Our IR office already collects data for us on a bi-annual basis on items such as course pass rates, withdrawal rates, success in subsequent courses, persistence to QR courses, etc. We plan to use these reports to compare data before and after the implementation of our new curriculum.
  + Our IR has further indicated that they are able to collect data for us on the number of credits attempted vs. the number of credits earned. We are hoping that this will show a dramatic improvement with our lagging sequence (the 3/2 split).
  + Also, while time consuming, we are thinking that there might be value in looking at the number of times students are repeating courses. Anecdotally we know that there are students who, in the past, have repeated a course 5+ times. Hopefully, this will be a decreasing trend.
  + Clark College has inspired us and we would like to survey our students for an improvement in student attributes and perceptions pre and post module 08 (problem solving skills and strategies).